3.0 The Transportation Planning Context

3.1 Current and Future Socioeconomic Characteristics

Ramona is a rural community located approximately 30 miles from Downtown San Diego with an existing 2000 population of 33,410 (2000 Census).

Ramona's circulation system deficiencies stem, in large part, from the fact that land development and population densities have exceeded the capacity of the roadway network.

As with many San Diego communities, Ramona has experienced rapid growth in population and land development, and transportation infrastructure has not kept pace. The General Plan 2020 Update is in progress and the planned population being considered is in the range of 50,000, but has not yet been finalized.

Table 3.1 displays 2000 and projected future year 2020 population for the Community of Ramona. As shown, population is expected to increase by 50% from 2000 to 2020.

Table 3.1
Ramona Community Planning Area Current and Future Population

			Percent Change
	2000	2020	(2000 to 2020)
Population	33,410	50,280	50%

Source: 2000 Census; SANDAG Series 9 Forecasts

Table 3.2 displays planned land uses within the Community of Ramona. As shown in Table 3.2, under 2020 conditions, the predominate land use in Ramona will be agriculture (34,350 acres) followed by low density single family residential (28,480 acres). The county is currently in the process of updating their general plan, which may likely result in changes to the Community of Ramona's future planned land uses.

Table 3.2
Ramona Community Planning Area Future Land Uses

Land Use	Acreage (2020)
Low Density Single Family	28,480
Single Family	400
Multiple Family	205
Industrial	285
Commercial/Services	365
Office	95
Agriculture	34,350
Public Lands	9,520
Specific Plan Area	10,230
Sensitive Lands	70
	84,000

Source: County of San Diego Department of Planning and Land Use, December 2002. Note: Acreages are estimated based upon land use designations in currently adopted County General Plan.

3.2 Land Development and the Roadway Network

Ramona has two distinct urban development patterns characterized by the historic district along Main Street between 5th Street and 10th Street, and the more recently developed areas south of 10th Street.

Figure 3-1 highlights some of the generalized locations of the urban development patterns in Ramona. The older urban development pattern incorporates smaller lots, small building setbacks, building facades that front directly on the street, parking in the rear or on-street, and a dense, interconnected street network of small blocks. The newer, more suburban development pattern is characterized by larger lots, large building setbacks, provision of large off-street parking lots, and larger street blocks with a discontinuous street network. These patterns of urban development are important when attempting to understand current transportation problems in Ramona.

Circulation system deficiencies in Ramona are largely the result of recent patterns of land development which have utilized key rights-of-way, effectively eliminating opportunities for completing the local roadway grid network. In particular, several key roadways that could have provided roadway capacity parallel to Main Street have been pre-empted by land development.

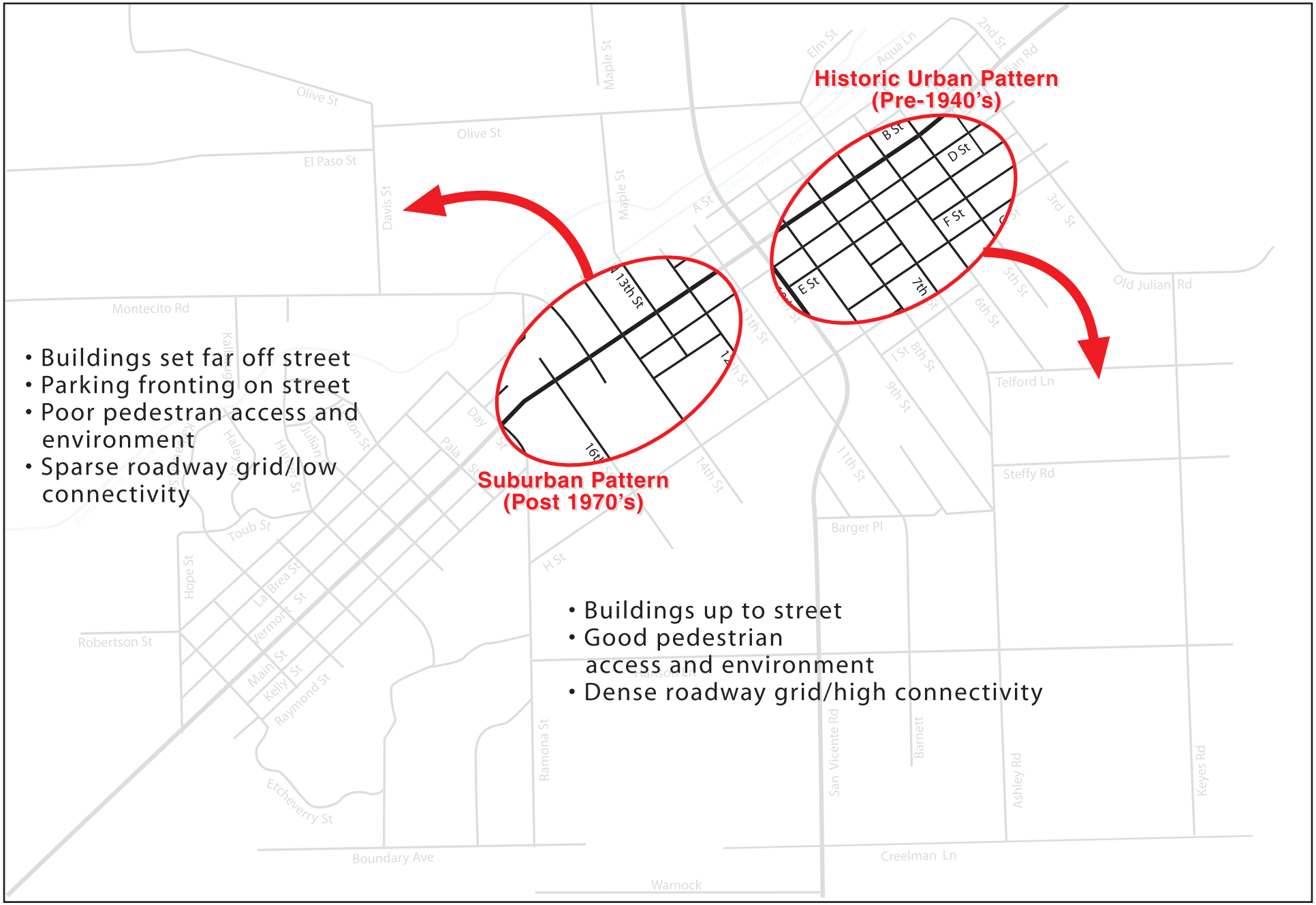
Figure 3-2 summarizes the existing condition of the local Ramona roadway system. Paved roadways, along with graded and ungraded connections are identified. The solid red lines indicate locations where roadway connectivity has been lost to land development.

Examples of specific locations where land development has obstructed key linkages in the local roadway network include:

- Vermont Street. This roadway is obstructed by the Kmart development at Pala Street, by residential development at 16th Street, and by the police station at Montecito Road.
- B Street. Future extension of this roadway is limited by the "bull ring" at 12th Street, by industrial development at 14th Street, and by the Albertson's Shopping Center along Montecito Road.
- D Street. Future extension of this roadway is obstructed by residential developments at 14th Street, by the new Post Office on E. Montecito Road, and by several commercial/medical buildings between E. Montecito Road and 16th Street.

Of particular concern is the gap in roadway infrastructure between 14th Street and Montecito Road on both sides of Main Street. Other nearby areas, such as between Montecito Road and 16th Street, are also characterized by limited local roadway facilities. These gaps in the local roadway network are located in areas with some of the more intense land development in Ramona. Localized travel demands are high, and with limited roadways and poor access, traffic congestion often results.

The following section documents some of the identified critical gaps in Ramona's local roadway network.



County of San Diego

Ramona Road Master Plan

Figure 3-1
Historical Urban Design Patterns in Ramona

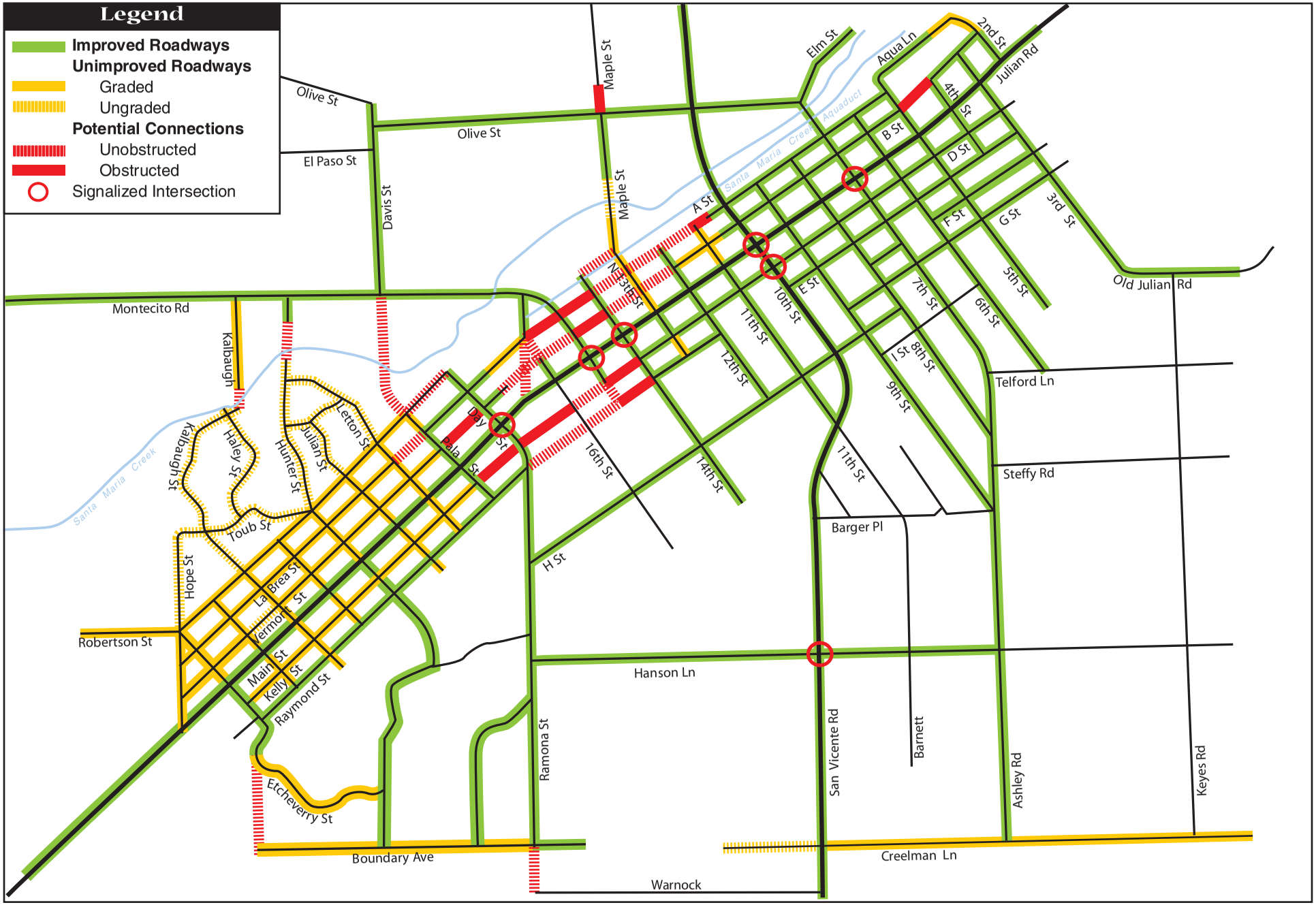


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Figure 3-2
Existing Roadway Conditions
Community of Ramona

Vermont Street between Pala Street and Montecito Road

Vermont Street is obstructed by the Kmart development at Pala Street, by residential development at 16th Street, and by the police station at Montecito Road. **Photos 1** through **5** illustrate critical gaps in connectivity along Vermont Street.

Photo 1:
Vermont Street / Pala Street, looking north

Photo 1 displays the Kmart building structure and parking lot situated on two square blocks between Pala Street and Day Street. Access to Kmart is provided via a private driveway utilizing the Vermont Street alignment. The parking lot functions as a through roadway due to a lack of other connections.

Photo 2 was taken at the intersection of Day Street and Vermont Street. Vermont Street terminates at an unimproved lot where pedestrian and vehicle dirt trails are currently being utilized by the community.

Photo 2:
Vermont Street / Day Street, looking north

Photo 3 shows what would be the continuation of Vermont Street from approximately Day Street to 16th Street. The photo also shows a vehicle traveling along the right-of-way that would be Ramona Street, north of Main Street.

Photo 3:
View from the northern terminus of Vermont Street

Photo 4:
View from the 16th Street cul-de-sac looking north across the Ramona Police Station parking lot

Photo 4 shows potential roadway right-of-way from the 16th Street cul-de-sac to Montecito Road across what would roughly follow the Vermont Street alignment. While the Ramona Police Station parking lot has provided informal access between Montecito Road and 16th Street, a gate has recently been installed, therefore limiting access.

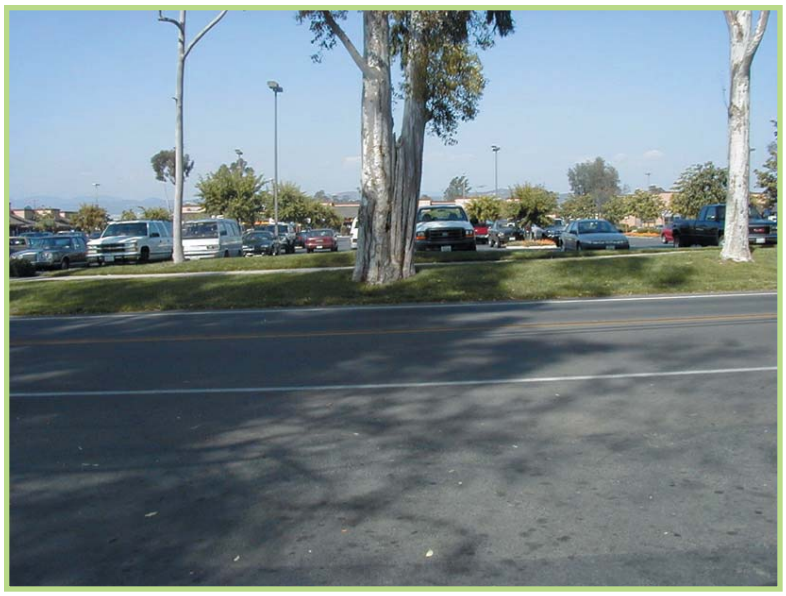

Photo 5:
Albertson's shopping center, looking north from Montecito Road

Photo 5 shows the Albertson's Shopping Center which was constructed in the right-of-way where B Street would connect between Montecito Road and 14th Street.

B Street between 14th Street and 12th Street

Land uses obstructing potential extensions of B Street are older and less intense than those obstructing Vermont Street. B Street connectivity is typically interrupted by older industrial developments and rural uses. **Photos 6** and **7** show some of these major obstructions.

Photo 6 shows an industrial development that was constructed in the right-of-way where A Street would connect between 14th Street and 13th Street.

Photo 6:
Looking north from "B Street" and 14th Street

Photo 7 shows open space and rural uses between 13th Street and 12th Street generally following the B Street alignment. The bull ring grounds are located at the far side of the open space area shown in Photo 7, at the intersection of B Street and 12th Street.

Photo 7:
View from 13th Street and "B Street", looking north

A Street between 11th Street and 14th Street

Further extensions of A Street are currently obstructed by a small pond at 11th Street and residential/commercial uses between 12th Street and 14th Street. **Photos 8** through **11** display these obstructions, from north to south.

Photo 8: View from A Street, looking south to the intersection of "A Street" and 11th Street

Photo 9:
View from " A Street" and 11th Street, looking south toward 13th Street

Photo 10 shows unimproved open space along what would be the A Street extension between 11th Street and 13th Street.

Photo 10:
View looking north from 13th Street and "A Street"

Photo 11 shows the general area where A Street would connect from 13th Street to 14th Street, with underutilized industrial uses on the parcel.

Photo 11:
View looking south from 13th Street and "A Street"

D Street between 16th Street and 14th Street

Further extensions of D Street are obstructed by residential developments at 14th Street, by the Post Office at E. Montecito Road, and by several commercial and medical buildings between E. Montecito Road and 16th Street. **Photos 12** through **15** show some of the obstructions to extending in D Street.

Photo 12:
E. Montecito Road and "D Street", looking north between the Post Office and an apartment complex

Photo 12 shows the general location where D Street would connect between E. Montecito Road and 14th Street. This important connection was lost with the development of the Post Office and an apartment complex.

Photo 13 shows the location where D Street would connect between E. Montecito Road and 16th Street. This location is currently a parking lot for medical/office buildings and is utilized as a thoroughfare.

Photo 13:
E. Montecito Road and "D Street", looking south behind a medical/office complex

Photo 14 is another view of the D Street alignment between E. Montecito Road and 14th Street, looking south from 14th Street.

Photo 14:
View from D Street and 14th Street, looking south

Santa Maria Creek Obstructions

The Santa Maria Creek, which runs roughly parallel to Main Street near the Town Center area, has also inhibited the ability to implement key roadway connections. Hunter Street extends from Main Street through to Cedar Road, and has been identified as a candidate for improvement across the creek.

Photo 15:
View from Hunter Street, looking west to Montecito Road

3.3 Main Street Traffic Operations

This section of the Plan summarizes existing Main Street traffic operations at key signalized intersections in Ramona. Main Street is a 2-lane roadway from Highland Valley Road to Pala Street, and a 4-lane roadway from Pala Street to 3rd Street. As development has proceeded in Ramona and the need for access to Main Street from intersecting streets has increased, key intersections along Main Street have been signalized. Traffic operations along Main Street are generally governed by the performance of these signalized intersections.

This section of the Plan presents an assessment of current intersection Levels of Service as well as causes for the congestion experienced by drivers at these intersections.

Intersection Level of Service

Level of Service is commonly used as a measure of intersection performance and congestion and is stratified in terms of average vehicle delays. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption and lost travel time.

Level of Service (LOS) categories have been established on a report card basis from A through F, with LOS A representing the best and LOS F representing the worst. Generally, LOS D is considered the least acceptable Level of Service, with LOS E and F indicating the need for roadway or intersection improvements. Level of Service criteria and definitions are described in **Table 3.3**.

Table 3.3
Signalized Intersection Level of Service Standards

Average Stopped Delay Per Vehicle (seconds)	Level of Service (LOS) Characteristics
<10.0	LOS A describes operations with very low delay. This occurs when progression is extremely favorable, and most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
10.1 – 20.0	LOS B describes operations with generally good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
20.1 – 35.0	LOS C describes operations with higher delays, which may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
35.1 – 55.0	LOS D describes operations with high delay, resulting from some combination of unfavorable progression, long cycle lengths, or high volumes. The influence of congestion becomes more noticeable, and individual cycle failures are noticeable.
55.1 – 80.0	LOS E is considered the limit of acceptable delay. Individual cycle failures are frequent occurrences.
>80.0	LOS F describes a condition of excessively high delay, considered unacceptable to most drivers. This condition often occurs when arrival flow rates exceed the LOS D capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay.

Source: 1997 Highway Capacity Manual, TRB Special Report 209

Figure 3-3 displays existing AM and PM peak hour intersection turning movements at each of the signalized intersections along Main Street.

Table 3.4 displays average vehicle delays at each of the signalized intersections during the existing peak hours as well as the corresponding Level of Service.

As shown in Table 3.4, all intersections except for Dye Road/Highland Valley Road/SR-67, currently operate at LOS D or better. The intersection of Dye Road/Highland Valley Road/SR-67 currently operates at LOS F in both the AM and PM peak hours, with long traffic queues prevalent during the PM peak hour.

Causes of Existing Intersection Delays

Although the intersection analysis indicates that only one intersection in Ramona currently operates at substandard Levels of Service (the County considers LOS E and F as substandard), many Ramona community members believe that current intersection delays are excessive. In response to this concern, each of the intersections were evaluated further to determine the causes for delays and options for improvement. The following discussion highlights causes for delay at each of the key Main Street intersections.

Table 3.4
Existing Traffic Operations
Main Street (SR-67) in Ramona

	AM		PM	
Signalized Intersections	Intersection Delay (sec.)	LOS	Intersection Delay (sec.)	LOS
Main Street / 7th Street	12.7	B	17.2	B
Main Street / Pine St./10th Street	33.8	C	44.2	D
Main Street / Montecito Road*	19.9	B	34.0	C
Main Street / 14th Street*	24.6	C	26.4	C
Main Street / Day Street / Ramona Street*	30.5	C	54.4	D
Dye Road / Highland Valley Road / SR-67	82.2	F	48.9	D**

Source: URS/BRW, July 2001

*Signal coordination in the PM peak hour. It should also be noted that long queues are forming on the minor streets along the Montecito Rd and 14th St intersection approaches.

**Long queues at this intersection along both minor and major streets make standard intersection analyses difficult to use for assessing peak hour intersection Level of Service. Backups during the PM peak hour may not solely be caused by the intersection.

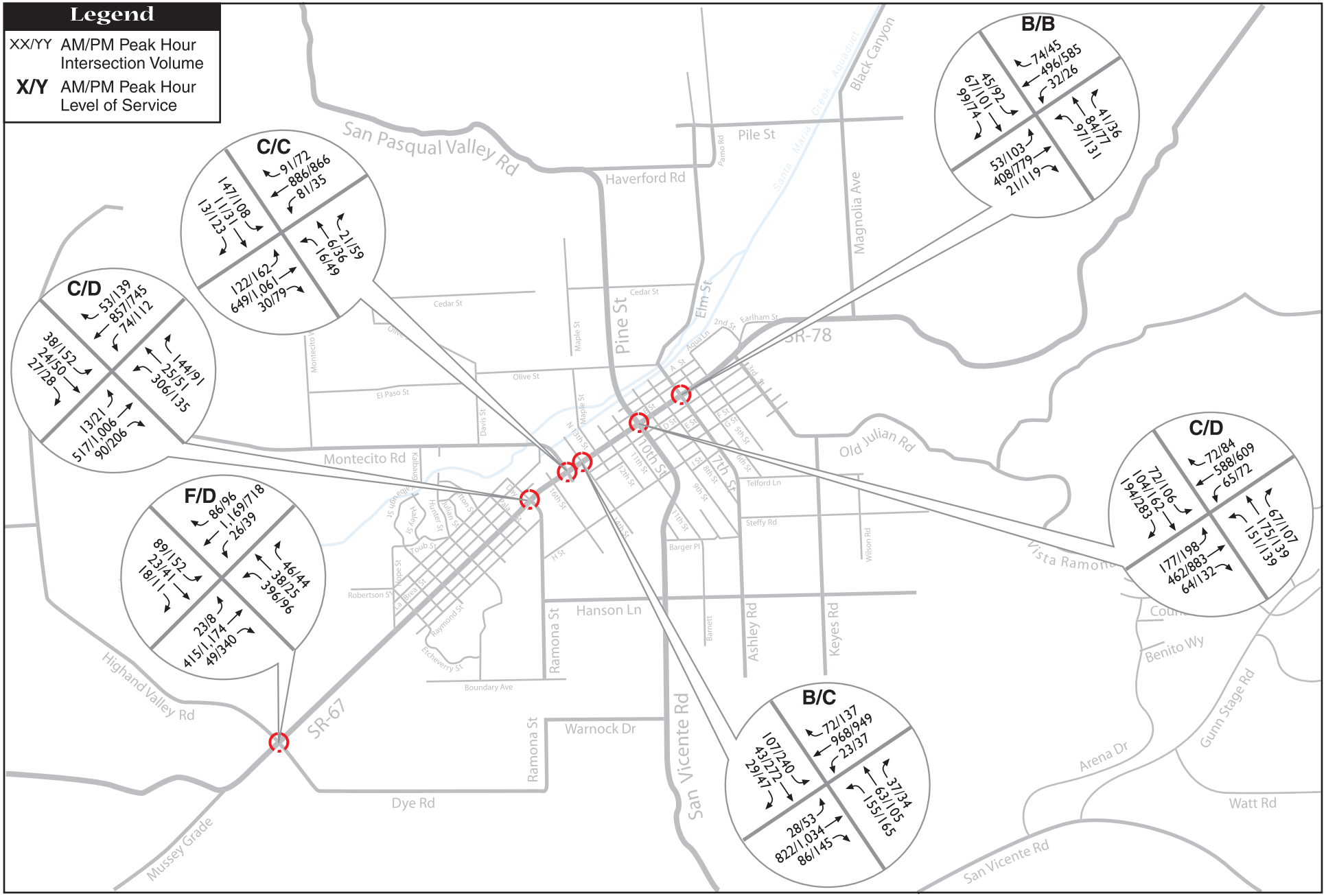

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Figure 3-3
Existing Conditions
AM/PM Peak Hour Intersection Level of Service
Main Street, Ramona

Dye Road / Highland Valley Road / SR-67: Delays well in excess of 200 seconds per vehicle in the AM peak hour are experienced by left-turning traffic at this intersection. There are approximately 396 vehicles per hour in the AM peak hour turning left from Dye Road onto southbound SR-67, with only one turn lane available. The northbound SR-67 approach at this intersection also experiences excessive queues of over 1600 feet during the PM peak hour. The causes for these long queues are not solely due to the intersection; as traffic approaches Ramona in the PM peak hour along northbound SR-67, slowing occurs as a result of high travel demands entering Ramona along a single travel lane. This problem is being further evaluated in the Dye Street/Dye Road Preliminary Engineering Traffic Study by the County of San Diego.

Main Street / Day Street / Ramona Street: There are significant side street approach queues of over 400 feet at Day Street and Ramona Street. Average delays at this intersection are over 65 seconds per vehicle in the AM peak hour.

Main Street / Montecito Road: The eastbound single-lane approach along Montecito Road experiences substantial queues of over 330 feet and average delays of over 50 seconds per vehicle in the PM peak hour.

Main Street / 14th Street: The eastbound 14th Street shared right-through lane experiences substantial queues of over 460 feet and average delays of over 80 seconds per vehicle in the PM peak hour.

Main Street / 10th Street / Pine Street: The eastbound Pine Street shared through-right lane experiences excessive queues of over 650 feet and average delays of over 90 seconds per vehicle.

3.4 Summary of Transportation Issues

This section summarizes the primary transportation problems, including network connectivity and Main Street traffic operation issues, as well as other issues identified during the data collection and problem formulation stages of the planning process.

Existing transportation problems can be generally categorized as follows:

- Lack of Roadway Connections
- Congestion and Poor Traffic Operations
- Pedestrian and Bicycle Safety

Lack of Roadway Connections

Land development and undeveloped roadways have created a discontinuous roadway network in Ramona. A major problem resulting from the discontinuous roadway network is an over-reliance on Main Street for access to local destinations. Roadway options parallel to Main Street are limited, forcing drivers onto Main Street and exacerbating the traffic congestion that is currently experienced.

To address this problem, this Plan recommends designation and development of an interconnected, secondary local roadway system that provides alternative routings and access to local trip destinations. Such a system would allow for parallel roadway

capacity to Main Street, as well as the provision of access to land uses from the rear or from the side of parcels, instead of the primary reliance upon Main Street as is the case today.

A similar problem is experienced along SR-67 between Archie Moore Road and Mussey Grade Road. Residents living north and south of SR-67 have difficulties accessing their properties during peak traffic hours because of long queues that inhibit left turns onto SR-67. In addition, drivers attempting to access their properties from SR-67 also contribute to long queues along SR-67 between Highland Valley Road and Archie Moore Road. To address this problem, this Plan recommends minimizing driveway access onto SR-67 and that a study be conducted to determine the feasibility of combining and/or re-routing driveways onto an internal roadway system.

Congestion and Poor Traffic Operations

- **Main Street:** The analysis of signalized intersection operations along Main Street shows that, while the majority of the intersections are currently operating at LOS D or better, several intersection movements experience excessive delays. These intersections are the focus of improvements identified in Chapter 6 of this Plan.
- **Intersection of SR-67 / Archie Moore Road:** There are operational issues and interim design concerns at this intersection. SR-67 merges from 4-lanes to 2-lanes at the end of a curve just north of the Archie Moore Road intersection, resulting in long traffic queues as traffic merges together, especially during the PM peak hour. The shoulders along SR-67 are used by turning traffic as acceleration/deceleration lanes, contributing to poor safety conditions in this area. Caltrans is evaluating various alternatives to improve both safety and traffic flow at this location. Highway traffic is currently using Archie Moore Road to bypass long queues at the Dye Road/Highland Valley Road/SR-67 intersection.

Pedestrian and Bicycle Safety

Pedestrians are often forced to mix with high-speed vehicular traffic in several locations throughout Ramona because of the lack of sidewalks. Bicycle and pedestrian access to public schools is of particular concern.

Examples of poor or nonexistent sidewalks include:

- The school zone along Montecito Road has no sidewalks.
- No sidewalks are provided along 16th and D Streets, and kids often have to walk in the roadway shoulder and travelways.
- The asphalt sidewalks along Hansen Street are narrow and generally in poor condition.

Figure 3-4 summarizes the various transportation issues and their generalized location in the Community of Ramona. Each of the identified transportation deficiencies are addressed in the Plan Elements with specific goals, policies and programs to be considered for implementation by the County of San Diego. ❖

Legend

1. Roadway Network Obstruction Due to Land Development
2. Unimproved Santa Maria Creek Crossing
3. Lack of Sidewalks Near Schools
4. Numerous Commercial Driveways along Main Street
5. Closely Spaced Signalized Intersections
6. Ungraded Roads in The Acres
7. Peak Hour Intersection Delays
8. Southern/Northern Bypass
9. Poor Access/Congestion at Post Office
10. Limited Access to the Country Estates

N

1"=6,930'

Ramona Town Center

Ramona Road Master Plan

County of San Diego

Figure 3-4
Summary of Transportation Issues
Community of Ramona